

vol. 25

ART. XX. *ECHINOCARIS CROSBYENSIS*, A NEW SPECIES
FROM THE UPPER DEVONIAN OF NEW YORK.

BY E. R. ELLER

In a previous paper, 1935, the writer described three species of *Echinocaris* from the Alfred Shale, a local facies of the Gowanda Shale, Canadaway Group of the Upper Devonian at Alfred Station, New York. The present paper describes an additional species from possibly the same horizon but from a locality near Crosby Creek, Hornell Quadrangle, New York, a distance of about four miles northeast from the Alfred Station locality. The specimen, which is of large size, consists of two well preserved valves of the cephalothorax. The abdomen and telson are missing.

Genus *ECHINOCARIS* WHITFIELD, 1880

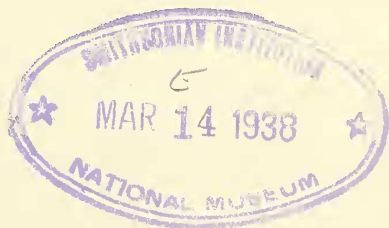
Echinocaris crosbyensis sp. nov.

The valves are broadly sub-ovate, the greatest width being posteriorly, with the length related to the width about as 4 to 3. The length of the carapace is 22 mm., and the width 15.3 mm. The hinge-line is straight and is about as long as the width of a valve and makes up about seventy per cent of its length. The anterior end curves very gently from the hinge-line and bears a row of large tubercles. The ventral side is slightly curved while the posterior end is broadly rounded. The margin is wide and highly elevated, especially at the anterior part.

The carina is long and elevated, beginning well forward in the anterior area of the carapace, and extends nearly to the posterior end. It has the form of a sigmoid curve, not angular, and is surmounted with round tubercles of a large size. Near the hinge-line in the posterior area is a short, highly elevated ridge or carina which widens at the anterior end and joins the raised margin at the posterior end. This ridge bears a single row of tubercles at the middle part and a double row at each end.

Parallel to the hinge-line in the anterior half of the valve is a row of three highly elevated nodes which are about 1.5 mm. in height. The first or most anterior one is sub-rounded, followed by a second node which is triangular in outline and becomes rounded toward the

MAR 8 1938



apex. The third node is oval in shape, the widest and highest part nearest the hinge-line. Three other nodes are distributed in the central part of the anterior area. The frontal one of them is large, having a diameter of about 4.5 mm. but it is low and not well defined. The second node in this group is small but prominent and is situated on the posterior edge of the first node. The third node is flattened and oval in shape with the greatest length parallel and close to the carina. All six nodes bear a number of prominent tubercles often arranged in a circle.

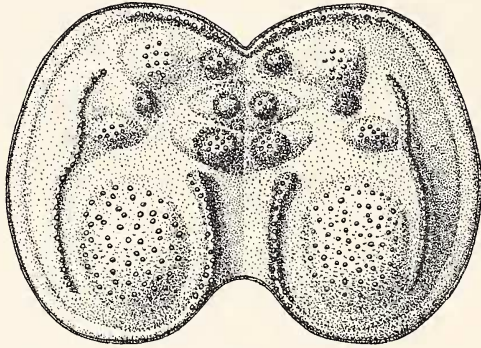


FIG. 1. *Echinocaris crosbyensis* Eller, $\times 2$, from the Upper Devonian of New York. The type is in the Carnegie Museum, no. 11572, Section of Invertebrate Paleontology.

The posterior area is swollen and covered with small tubercles. The surface of the valves lacks definite pitting common in many other species of *Echinocaris*. The posterior area has a chagrined appearance.

Echinocaris crosbyensis m. does not correspond to any other species of the genus except in a general way. Its hinge-line, in reference to the length of the carapace, is very long. The scattered distribution of the nodes on the carapace is not commonly found in other forms. The general outline compares roughly to *Echinocaris whidbornei* Jones and Woodward, 1889. *Echinocaris crosbyensis* m. is similar to *Echinocaris condylepis* Hall and Clarke, 1888, in its outline but in the latter form the proportions of the length to width is greater. The ridge near the hinge-line, which appears to be a continuation of the posterior margin, is also found in *Echinocaris socialis* Beecher, 1884. The form of the carina of *Echinocaris crosbyensis* m. is like that of *Echinocaris condylepis* Hall and Clarke, and *Echinocaris turgida* Eller, 1935. The ornamentation is comparable to *Echinocaris turgida* Eller.

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